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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/520,625	01/10/2005	Masayuki Kamite	264121US3PCT	5601

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EXAMINER	
LEYSON, JOSEPH S	

ART UNIT	PAPER NUMBER
1791	

NOTIFICATION DATE	DELIVERY MODE
12/12/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/520,625	KAMITE, MASAYUKI	
	Examiner	Art Unit	
	Joseph Leyson	1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 September 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *14,15,25 and 26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *14,15,25 and 26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. All previous objections and/or rejections are withdrawn in view of Applicant's response filed on September 25, 2007, if NOT restated below.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 14 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gustafsson (U.S. Patent 5,746,958) in view of Taguchi et al. (U.S. Patent 6,228,301) and Barnes (U.S. Patent 3,538,595).

Gustafsson (U.S. Patent 5,746,958) discloses a manufacturing apparatus to manufacture a wood-like molded product through extrusion molding, the apparatus including a first crushing device 30B to crush or pulverize a resin waste material, a second crushing device 30A to crush or pulverize a wood waste material, the first crushing device 30B being separate from the second crushing device 30A (i.e., fig. 1), a magnet to separate metals (i.e., col. 5, lines 17-21), a blending mixer 40, 100 to mix the crushed resin waste material and the crushed wood waste material to prepare a mixed material, an extrusion molding device 70 to heat and melt the mixed material, and mold the mixed material into an extrusion mold product through extrusion molding, and a sizer member 95. A first path is configured to supply the crushed resin waste material

obtained from the first crushing device 30B to the blending mixer 40, 100 (i.e., fig. 1), and a second path is configured to supply the crushed resin waste material obtained from the second crushing device 30A to the blending mixer 40, 100 (i.e., fig. 1). However, Gustafsson (U.S. Patent 5,746,958) does not disclose the crushing device 30A including three devices (namely, as recited in the instant claims, the second crushing device, the third crushing device and the grinding device), the extrusion molding device molding the material into a cylindrical shape, the sizer member including an opening portion having an inner diameter which is substantially the same as an outer diameter of the extrusion mold product in the cylindrical shape produced by the extrusion molding device through the extrusion molding, or a cutting device to cut the extrusion mold product into a predetermined length.

Taguchi et al. (U.S. Patent 6,228,301) discloses a manufacturing apparatus to manufacture a wood-like molded product through extrusion molding, the apparatus including pulverizing equipment including a first pulverizing device to crush a wood waste material (i.e., col. 8, lines 1-16), a second pulverizing device to further crush the crushed wood waste material crushed by the first pulverizing device into fine chips (i.e., col. 8, lines 17-32), and a third pulverizing device to grind the fine chips from the second pulverizing device into a fine powder (i.e., col. 8, lines 33-56), the first, second and third pulverizing devices being separate devices, a blending mixer to mix crushed resin waste material and the crushed wood waste material from the pulverizing equipment to prepare a mixed material (i.e., col. 8, lines 63-67), and an extrusion molding device to extrude the mixed material into desired shapes (col. 9, lines 1-4).

Barnes (U.S. Patent 3,538,595) discloses a manufacturing apparatus to manufacture an extrusion mold product with a cylindrical main body through extrusion molding, the apparatus including an extrusion molding device 2 to heat and melt an extrusion material, and mold the material into a cylindrical shape 1 through extrusion molding, a sizer member 3, 6 which includes an opening portion of which an inner diameter is substantially the same as an outer diameter of an extrusion mold product 1 in the cylindrical shape produced by the extrusion molding device 2 through the extrusion molding, and adjusts a sectional shape and a dimension of the extrusion mold product 1 by inserting the extrusion mold product 1 into the opening portion, and a cutting device 8 to cut the extrusion mold product 1, of which the sectional shape and the dimension are adjusted by the sizer member 3, 6, into a predetermined length, thus forming the cylindrical main body.

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the second crushing device of Gustafsson (U.S. Patent 5,746,958) to include the first, second and third pulverizing devices of Taguchi et al. (U.S. Patent 6,228,301) (which would correspond to the second crushing device, the third crushing device and the grinding device of the instant claims, respectively) because such a modification would enable the wood waste material to be pulverized in a three step process which effectively pulverizes the wood waste material from lumps to fine powdery particles, as disclosed by Taguchi et al. (U.S. Patent 6,228,301: i.e., col. 7, line 60, to col. 8, lines 62) and because Taguchi et al. (U.S. Patent 6,228,301: i.e., col. 7, lines 60-67) discloses that a single pulverizing process (i.e., one device) or a three

step pulverizing process (i.e., three devices) are alternatives in the art; and to modify the apparatus of Gustafsson (U.S. Patent 5,746,958) such that the extrusion molding device molds the mixed material into a cylindrical shape, that the sizer member includes an opening portion having an inner diameter which is substantially the same as an outer diameter of the extrusion mold product in the cylindrical shape produced by the extrusion molding device through the extrusion molding, and that a cutting device to cut the extrusion mold product into a predetermined length is further included because such a modification would provide an extrusion mold product with a cylindrical shape which was cut to a predetermined length, as disclosed by Barnes (U.S. Patent 3,538,595). Note that it is well known and conventional in the extrusion art to extrude cylindrical shapes, i.e., pipes, to size or calibrate the cylindrical shapes, and to cut the cylindrical shapes to length, as disclosed by Barnes (U.S. Patent 3,538,595). With the proposed modification above, the second path would then extend from the third pulverizing device (i.e., the grinding device) to the blending mixer.

4. Claims 15 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gustafsson (U.S. Patent 5,746,958) in view of Taguchi et al. (U.S. Patent 6,228,301) and Barnes (U.S. Patent 3,538,595) as applied to claims 14 and 25 above, and further in view of Hayashi et al. (U.S. Patent 5,301,881).

Gustafsson (U.S. Patent 5,746,958), Taguchi et al. (U.S. Patent 6,228,301) and Barnes (U.S. Patent 3,538,595) disclose the apparatus substantially as claimed, as mentioned above, except for an eddy current separator device and a gravity separator, as recited by instant claim 15.

Hayashi et al. (U.S. Patent 5,301,881) disclose a metal separating apparatus for separating metals from other materials, the apparatus including a magnetic sorter 10, an eddy current separator device 11 to separate a metal which is not attracted to the magnetic sorter but has conductivity, and a gravity separator 24 to separate a substance that is not separated by the magnetic sorter and the eddy current separator device (i.e., fig. 2).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to further modify the apparatus with an eddy current separator device and a gravity separator because such a modification would separate various materials from other materials to be recycled, as disclosed by Hayashi et al. (U.S. Patent 5,301,881: i.e., cols. 1-2); because such a modification would remove other metals which were not removed by the magnet of Gustafsson (U.S. Patent 5,746,958); and/or because Gustafsson (U.S. Patent 5,746,958; col. 5, lines 17-21) discloses that removing metal fragments is desired because such metal fragments could cause equipment failure and result in costly repairs and downtime.

Response to Arguments

5. Applicant's arguments with respect to the instant claims have been considered but are moot in view of the new ground(s) of rejection.

Applicant argues that Taguchi et al. (US 6,228,301) discloses a pulverizing process which is performed on the mixture of the wooden members and the resinous members, that the Taguchi et al. reference expressly teaches the pulverizing process is performed after mixing of the wooden members and the resinous members, as an

object of the invention (Col. 2, lines 56-63), that, based upon the express teachings of the Taguchi et al. reference when combined with the teachings of the Gustafsson et al. reference, the pulverizing process of the Taguchi et al. reference would have been performed on the output (45) of the weight system (40), and not during the size reduction step (30A) of the Gustafsson et al. reference, as suggested in the Official Action, that modifying the size reduction step (30A), which is solely for the wood component (10), to include the pulverization process of the Taguchi et al. reference would be contrary to the express teachings of the Taguchi et al. reference (see col. 2, lines 20- 63, and MPEP 2141.02VI.), and thus is clearly predicated on hindsight considerations, that the Taguchi et al. reference also does not teach or even suggest a third crushing device and a grinding device that produces a fine powder that is sent to a blending mixer for mixing with a crushed resin material, and that the Taguchi et al. reference teaches away from providing such pulverization devices prior to a mixing device (See col. 2, lines 20-63).

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

As will be explained below, the examiner does NOT agree that the Taguchi et al. reference also does not teach or even suggest a third crushing device and a grinding device that produces a fine powder that is sent to a blending mixer for mixing with a crushed resin material, and that the pulverizing process of the Taguchi et al. reference would have been performed on the output (45) of the weight system (40), and not during the size reduction step (30A) of the Gustafsson et al. (US 5,746,958), that modifying the size reduction step (30A), which is solely for the wood component (10), to include the pulverization process of the Taguchi et al. reference would be contrary to the express teachings of the Taguchi et al. reference (see col. 2, lines 20- 63), and that the Taguchi et al. reference teaches away from providing such pulverization devices prior to a mixing device (See col. 2, lines 20-63).

The examiner agrees that the Taguchi et al. reference expressly teaches the pulverizing process is performed after mixing of the wooden members and the resinous members (i.e., is performed on the mixture of the wooden members and the resinous members, as an object of the invention (Col. 2, lines 56-63). However, Taguchi et al. teaches much, much more! Taguchi et al. discloses that it is well known in the art to have separate lines for processing the wooden members and the resinous members BEFORE mixing (i.e., fig. 1; col. 1, line 27, to col. 2, line 31), and that processing can include a one step or three step pulverizing (i.e., three consecutive pulverizing apparatus) (i.e., col. 7, line 60, to col. 8, line 62). The three step process enables the wooden members to be broken down into smaller and smaller pieces, which effectively pulverizes the wooden members from lumps to fine powdery particles. Gustafsson et

al. even discloses pulverizing the wooden members and the resinous members separately BEFORE mixing (i.e., fig. 1). Therefore, in view of ALL the teachings of Taguchi et al., the prior art rejection above by the examiner would NOT be contrary to the teachings of the Taguchi et al. reference, and the Taguchi et al. reference does NOT teach away from the combination in the above prior art rejection. Clearly, three step pulverization is known in the art to ultimately make fine powdery particles, and it is well known in the art that pulverizing can occur before or after mixing, as mentioned above. Applicant's argument that the pulverizing process of the Taguchi et al. reference would have been performed on the output (45) of the weight system (40), and not during the size reduction step (30A) of the Gustafsson et al., is incorrect because such a modification would provide pulverizing before AND after mixing, whereas Taguchi et al. teaches a pulverizing process EITHER before or after mixing.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Leyson whose telephone number is (571) 272-5061. The examiner can normally be reached on M-F 9AM-5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gupta Yogendra can be reached on (571) 272-1316. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Robert B. Davis/
Primary Examiner.
Art Unit 1791
December 7, 2007

JL